

Indiana's Response to Intervention Academy



Data-Based Decision Making
(Beginning)

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OUTCOMES

As a result of this presentation, you will. . .

- ❑ Have a basic understanding of the need for quality instruction to be based on a systematic process of data collection, analysis and reporting.
- ❑ Understand a basic problem solving model and its application to educational settings.
- ❑ Examine how school leadership teams systematically utilize data to facilitate decision-making to address curriculum, instruction and behavioral needs

Critical Elements to Implement RTI

- ❑ Well functioning school-based leadership team and problem-solving team
- ❑ School-wide screening & progress monitoring
- ❑ Systematic analysis of school-wide data
- ❑ Examination of current core academic and behavioral programs
- ❑ Identification of evidence-based interventions at tiers 2 and 3
- ❑ Determination of who will monitor progress monitoring
- ❑ Framework for data-based decision making

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Data-Based Decision Making

DATA



+

DECISION-MAKING



DATA



“Without data all anyone
has is an opinion.”

Edward Deming

Data Types: Quantitative

Summative Assessment Data

- ▣ Summative assessments are used to determine how well we have met our instructional objectives. E.g.:
 - State assessments
 - District benchmark or interim assessments
 - End-of-unit or chapter tests
 - End-of-term or semester exams
 - Scores that are used for accountability for schools (AYP) and students (report card grades)

Formative Assessment Data

- ▣ “Formative assessment is a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students’ achievement of intended outcomes.”

State Collaborative on Assessment and Student Standards (2006)

Formative Assessment: “a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students’ achievement of intended outcomes.”

- ❑ formative assessment is a **process**
- ❑ used by both **teachers and students**
- ❑ takes place **during instruction**
- ❑ provides **assessment-based feedback**
- ❑ for the purpose of **making adjustments** to teaching & learning (immediate adjustments, not adjustments to be made the next time I teach this unit)

Popham, W.James. **Transformative Assessment**, ASCD 2008

Formative assessment “informs” the teaching/learning process

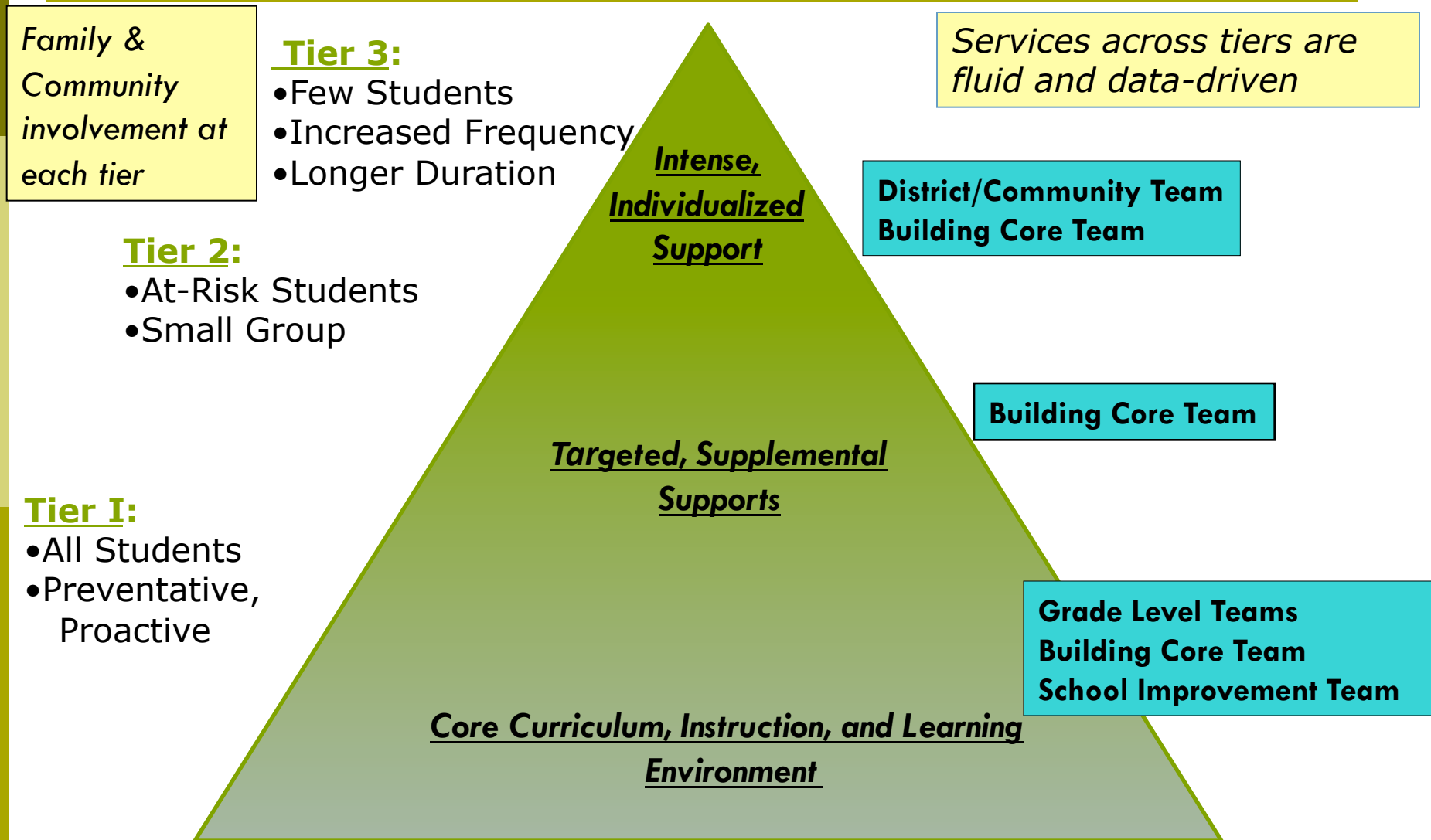


- ❑ Universal Screening
 - Reading
 - Math
 - Social/Emotional
- ❑ Progress monitoring
 - Reading
 - Math
 - Social/Emotional

Data Types: Qualitative

- ❑ Family Information
- ❑ Cultural, Ethnic Information
- ❑ Self-Reports
- ❑ Observational
- ❑ Informal/Formal Interviews or Surveys

Integrated System for Academic and Behavioral Supports



Data collection, analysis & sharing

- Setting
- What data will be collected?
- How will the data be collected?
- When will the data be collected & by whom?
- How often will the data be analyzed & by whom?
- How will the data be communicated & to whom?

Adapted from material presented by Ron Benner at the Indiana Response to Intervention Conference, October 13-16, 2008

Example: SW-PBS

Level: District & School

□ What to collect:

- Office Discipline Referrals (ODRs)
- Suspension & Expulsion Records

□ What to look for:

- What types of problem behaviors are occurring
- Where are they occurring
- What time are they occurring
- Who (e.g. a particular grade level, a particular sub-group of students?)

Example: Curriculum Based Measurement

Level: Student

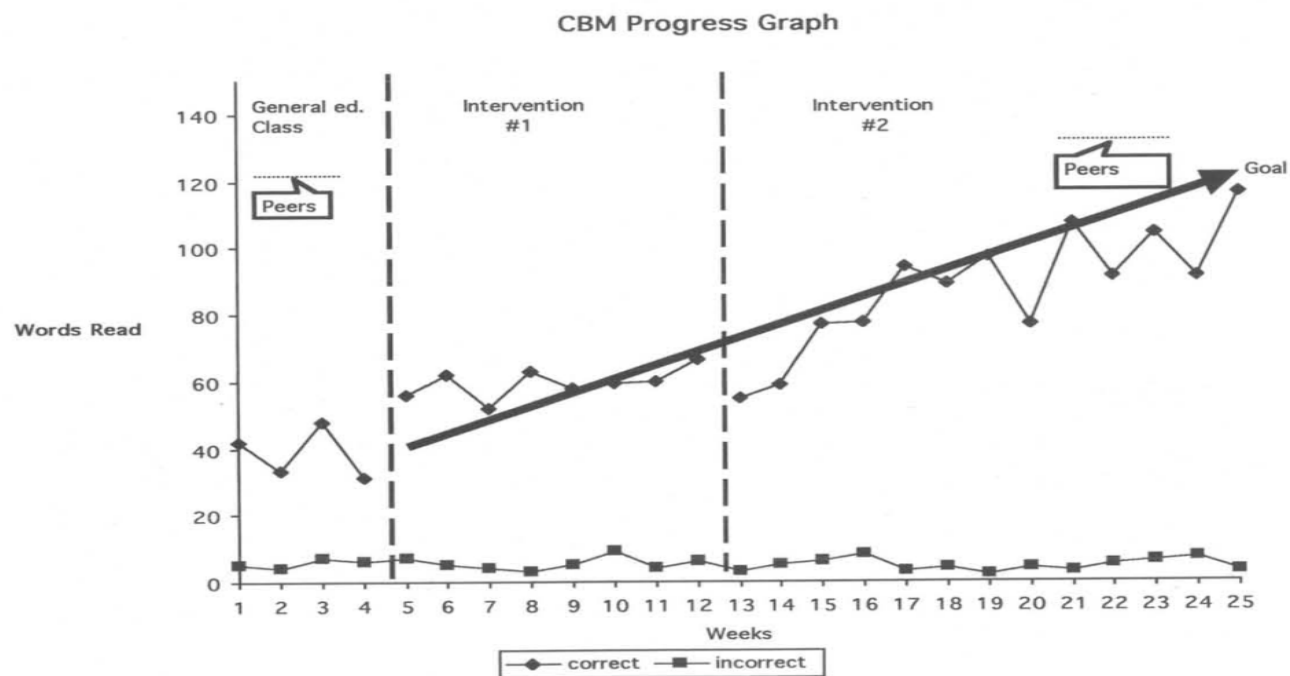


FIGURE 1. CBM progress graph.

Deno, Stanley L. *Developments in Curriculum-Based Measurement*, 2003

Data-based Decision Making . . .

- ▣ guides us, within a public, objective and normative framework, to analyze student data and to guide classroom, school and district level decisions on instructional changes, choices of interventions and appropriate rates of progress.

Adapted from material presented by Ron Benner at the Indiana Response to Intervention Conference, October 13-16, 2008



How do we solve problems?

Education is about making decisions:

at the district level, the school level, the classroom level and at the student level

What is it we expect
all students to learn?
What will we do when
they do not learn?

DuFour & Eaker



Is there a problem and what is
it?
Why is the problem happening?
What can be done about the
problem?
Did the intervention work?

Tilly

Is an adjustment
needed and, if so,
what should the
adjustment be?

Popham

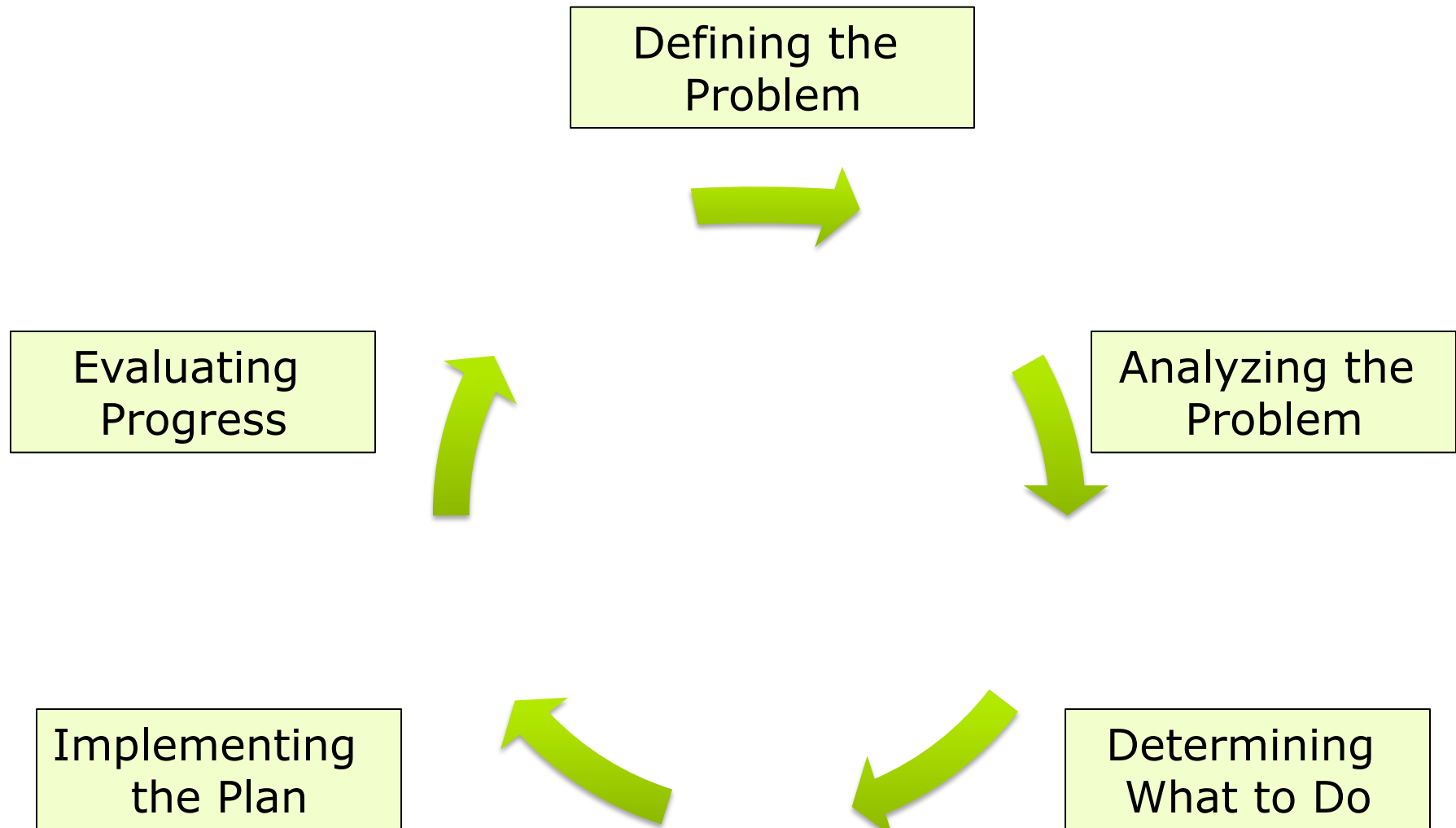
Jefferson Memorial Problem



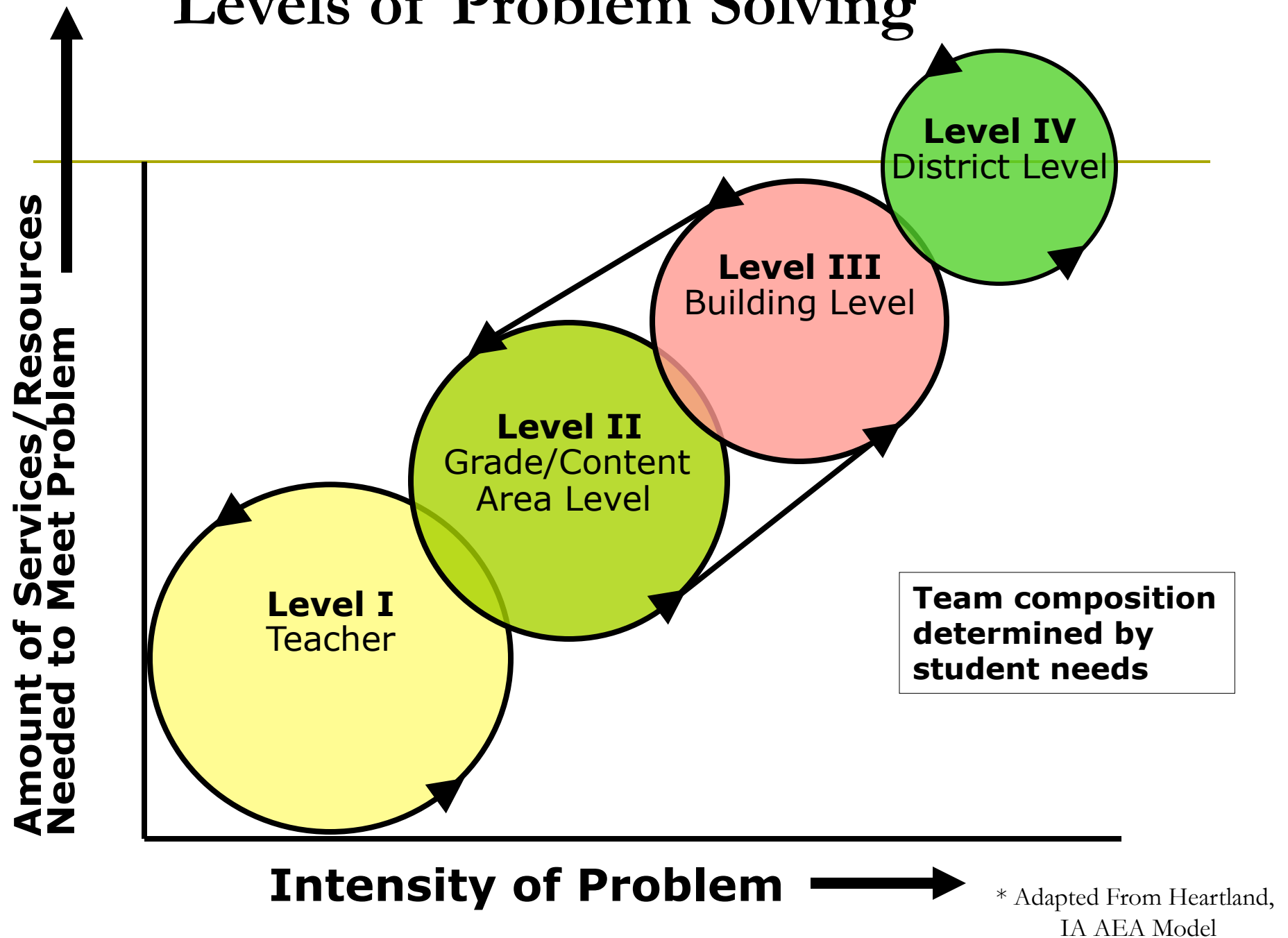
Problem Solving Method

- Refers to a data-based decision making process that occurs at each tier of service delivery to
 - Determine interventions,
 - Determine the effectiveness of intervention, and
 - Provide for frequent progress monitoring

Problem Solving Method



Levels of Problem Solving



RtI calls for a shift in thinking

The central question is not
“What about the students is causing the performance discrepancy?”

But

“What about the interaction of the curriculum, instruction, learners, and learning environment should be altered so that students learn?”

Howell

Four Considerations within Problem Solving

- Curriculum
 - “what is taught”
 - Instructional philosophy/approaches, content, & pacing
- Instruction
 - “how it’s taught”
 - Materials, direct instruction with explanation and cues, clear expectations and goals, sequencing
- Environment
 - “where instruction takes place”
 - Physical arrangement, rules, routines, expectations
- Learner
 - “who’s being taught”
 - Motivation, abilities
 - Considered after the above are addressed, if needed.

Howell



A Look at Each Step in the Process

PROBLEM DEFINITION

Problem Definition

"What is the Problem?"

- Need clear and specific descriptions
- Identify the desired outcome
- Difference between the observed and the desired indicates severity

What's the “problem” with the Jefferson Memorial?

- ❑ 1. Birds are making a mess on the memorial.
- ❑ 2. Cleaning solutions are too harsh.
- ❑ 3. The memorial is showing excessive wear.

Problem Definition

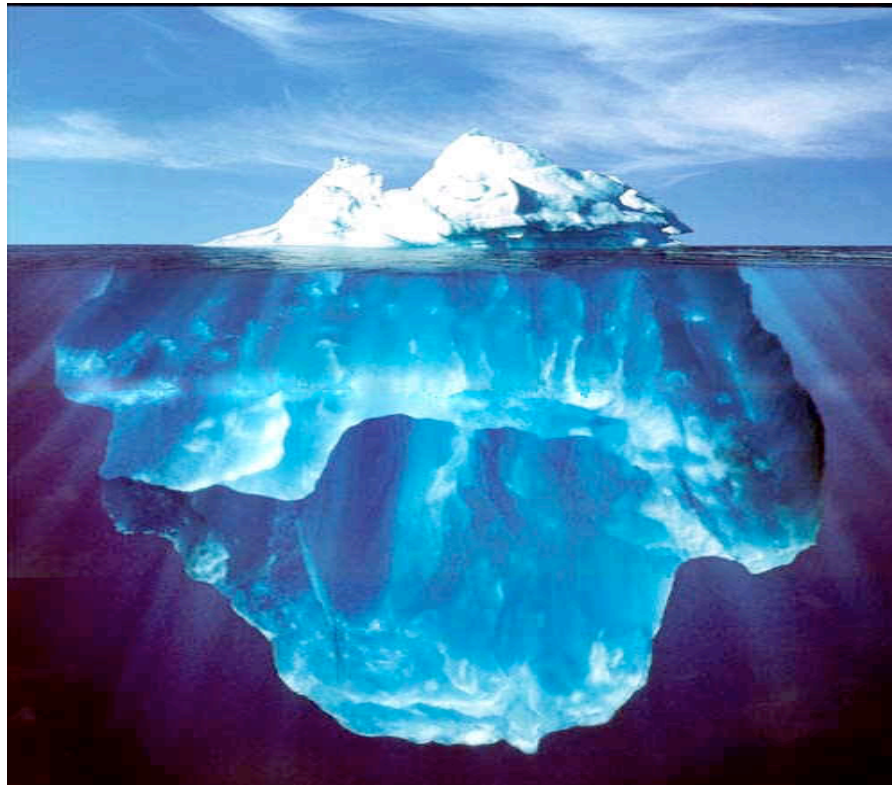
Tier	Considerations	Problem Solving Team
III	<ul style="list-style-type: none">▪How does a given student's performance level differ from the desired criterion?	<ul style="list-style-type: none">▪Building/Core Team▪District Team
II	<ul style="list-style-type: none">▪How does a given student's performance level differ from the desired criterion?	<ul style="list-style-type: none">▪Building/Core Team▪Grade Level/Content Area Team
I	<ul style="list-style-type: none">▪How significant is the behavior of concern?▪How many students are proficient/at benchmark?▪Is it an individual or group problem?	<ul style="list-style-type: none">▪School Leadership/Improvement Team▪Grade Level/Content Area Teams▪Teachers



A Look at Each Step in the Process

PROBLEM ANALYSIS

Look Beneath the Surface



What data do we need to develop a hypothesis?

Let's go back to the Jefferson Memorial

- ❑ How did problem analysis progress and what did it reveal in the Jefferson Memorial problem?
- ❑ It wasn't just the birds pooping on the memorial.
- ❑ It involved multi-level questioning and the use of outside technical assistance.

Problem Analysis

"Why is the problem occurring?"

- ❑ Focus on instructionally relevant and changeable variables.
- ❑ Consider the domains of influence: curriculum, instruction, environment.
- ❑ Apply professional knowledge of content (importance of team composition and expertise).
- ❑ Prioritize and sequence instruction.



A Look at Each Step in the Process

PLAN DEVELOPMENT

Plan Development

"What are we going to do about it?"

- ❑ Focus on a measurable goal (s)
- ❑ Address the hypotheses reached during problem analysis
- ❑ Identify the materials, procedures, frequency, duration, starting date, and person providing the instruction
- ❑ Develop a progress monitoring plan including assessment, frequency, and who will collect
- ❑ Schedule time and procedures for reviewing the data



A Look at Each Step in the Process

PLAN IMPLEMENTATION

Plan Implementation

"Are we implementing the intervention as intended?"

"Are we collecting progress monitoring data?"

Remember, interventions should. . .

- ❑ match the curriculum that is being taught
- ❑ match the problem that has been identified
- ❑ match the severity and intensity needed to effect change

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Implementation Fidelity

- Addresses the questions
 - “was the intervention implemented as planned?”
 - “was it feasible?”
- Reviewing implementation fidelity data supports the team to make appropriate decisions about
 - the effectiveness of an intervention and
 - the future needs of a given student.

Ways to Measure Implementation Fidelity

- ❑ Self-report checklists
- ❑ Interviews
- ❑ Observations with optional performance feedback



Each requires.....

- a clear definition of the intervention,
- statements of who, when, how often, how long



A Look at Each Step in the Process

EVALUATING PROGRESS

Evaluate Progress

"Did it work?"

- ❑ Consider integrity of plan implementation
- ❑ Progress monitoring data reviewed
- ❑ Ineffective plans modified in a timely manner
- ❑ Intervention plans modified as appropriate to address emerging needs

Use of the Problem Solving Method

- ▣ Integrates data and decision-making
- ▣ Facilitates more efficient, structured meetings
- ▣ Informs instructional decisions and the development of targeted interventions

References

- ❑ DuFour, Richard & Eaker, Robert. (1998). **Professional Learning Communities At Work, Best Practices for Enhancing Student Achievement**, National Educational Service & ASCD
- ❑ Fullan, Michael. "The Six Secrets of Change" address presented at the OSEP Project Directors' Meeting, Washington, D.C., July 20, 2008
- ❑ Miller, Ginger & Nellis, Leah (2008) "Problem Solving Method", Power Point Presentation, Blumberg Center for Interdisciplinary Studies, Indiana State University
- ❑ Popham, W. James. (2008). **Transformative Assessment**, ASCD
- ❑ Skiba, Russell J., Michael, Robert S., Nardo, Abra Carroll & Peterson, Reece. (2000). "The Color of Discipline, Sources of Racial & Gender Disproportionality in School Punishment", The Indiana Education Policy Center, Indiana University
- ❑ Tilly, W.David III. (2008) "The Evolution of School Psychology to Science-Based Practice: Problem Solving and the Three-Tiered Model" in **Best Practices in School Psychology V**, NASP